Algebra 2 Name_____

Exponential Review

Date_____ Period____

Solve each equation. Give BOTH the EXACT answer and the approximate answer rounded to three decimal places.

1) $6 \cdot 9^{x-4} = 6$

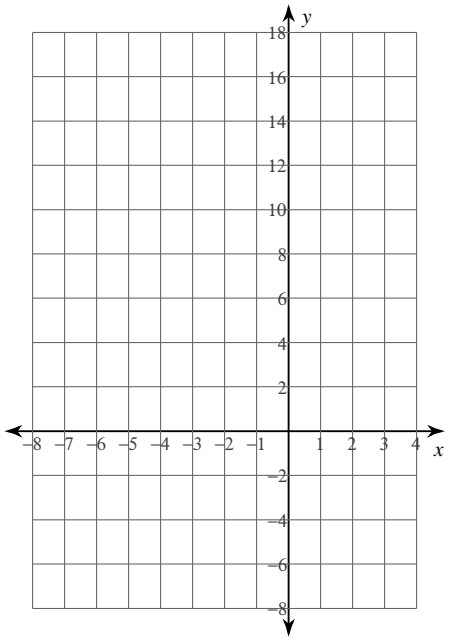
2) $9 \cdot 7^{-5v} = 42.6$

3) $-5 \cdot 10^{-3v-2} - 5 = -55$

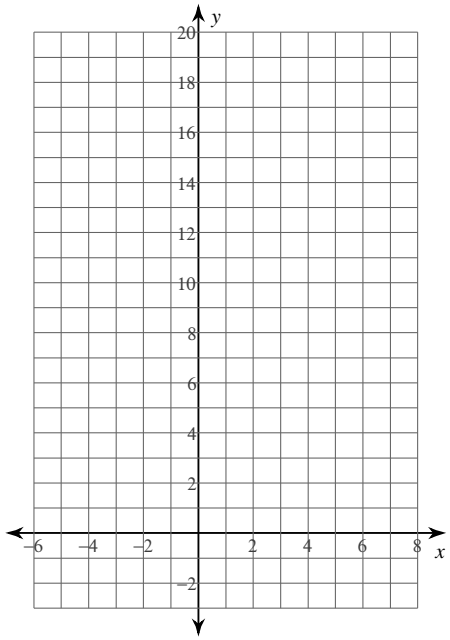
4) $9 \cdot 11^{6a+1} + 4 = 67$

Sketch the graph of each function.

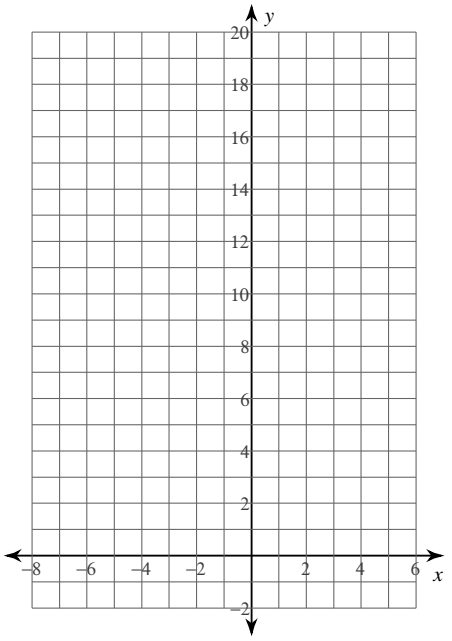
5) $y = 2 \cdot \left(\frac{1}{2}\right)^{x+2} - 1$



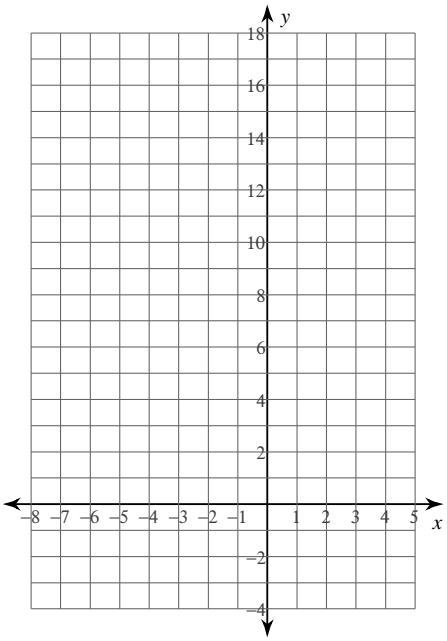
6) $y = \frac{1}{3} \cdot \left(\frac{1}{4}\right)^{x-1} + 2$



7) $y = 4 \cdot 2^{x+1} + 2$



8) $y = \frac{1}{2} \cdot 5^{x+2} - 2$



Answers to Exponential Review

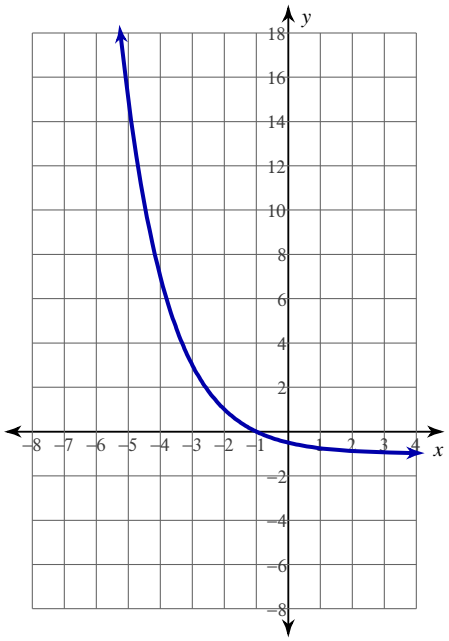
1) $x = 4$

3) $x = -1$

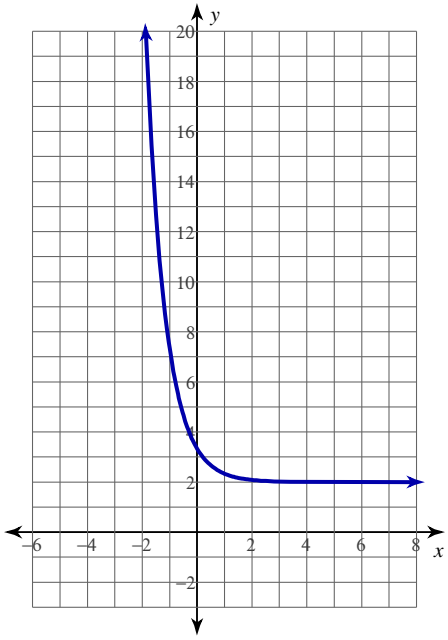
2) $x = -0.16$; $x = \dfrac{\log \dfrac{42.6}{9}}{\dfrac{\log 7}{-5}}$

4) $x = -0.0314$; $x = \dfrac{\dfrac{\log 7}{\log 11} - 1}{6}$

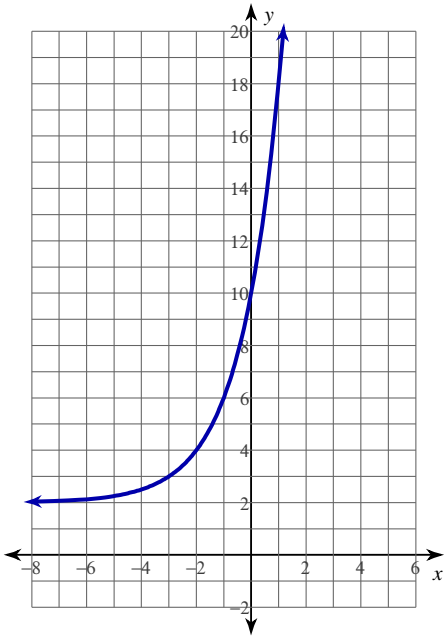
5)



6)



7)



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